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UNITED STATES DEPARTMENT OF AGRICULTURE  
Rural Electrification Administration  
Washington 25, D. C.

August 4, 1950

TELEPHONE ENGINEERING MEMORANDUM 501

SUBJECT: Engineering Services for REA Telephone Borrowers

The purpose of this memorandum is to describe the procedures to be followed by REA telephone borrowers in obtaining competent engineering services to insure the proper design, construction, and operation of their systems.

Normally, the services of an engineer will not be required by a borrower before loan funds are allocated by the Administrator. The employment of an engineer soon after an allocation will permit the early completion of the design of the area-coverage system. Plans and specifications for construction of the project may then be prepared as soon as the loan contract is approved.

The selection of an engineer is the responsibility of the borrower. However, under no circumstances should a borrower employ an engineer without the prior approval of REA.

There are two general methods under which a borrower may employ an engineer: (1) by entering into a contract with a consulting engineer or engineering firm, and (2) by establishing an engineering unit on its own payroll (force account engineering). The procedures applicable to these methods are described in the paragraphs which follow.

1. Contract Engineering Services

A borrower desiring to have engineering services provided under an engineering service contract should consider the qualifications of available engineers and should make a first, second, and third choice of engineer accordingly.

The following information shall then be forwarded to the Engineering Division of REA for review:

- a. A copy of the resolution of the board of directors naming its selection of first, second, and third choice of engineer
- b. The qualifications and experience records of the engineers selected along with similar information on their employees. REA Form DS-28R should be used for this purpose. Where such information has been previously filed with REA, it will not be necessary to resubmit it.

After review by REA of the qualifications of the engineers selected, the borrower will be notified of the action taken regarding its selections. Three copies of an engineering service contract form will be sent to the borrower for execution by the borrower and the engineer whose selection has been approved by REA. When properly executed, these three copies of the contract shall be returned to REA for the approval of the Administrator.



## 2. Force Account Engineering Services

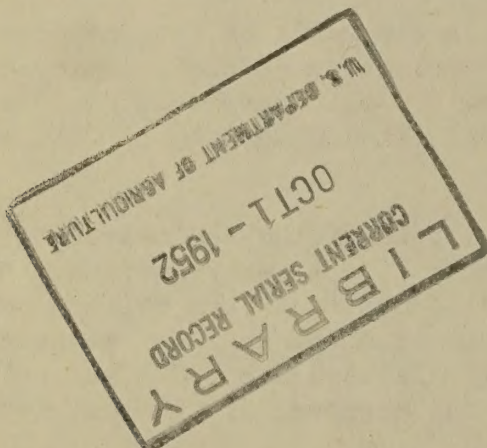
A borrower desiring to have engineering services provided by force account whereby an engineering unit is established on its payroll shall submit the following information to the Engineering Division:

- a. A copy of the resolution of the board of directors authorizing the formation or use of an engineering unit, designating the engineer to be in charge of the unit, and approving the estimate of the total cost of engineering services to be furnished.
- b. The qualifications and experience records of the engineer to be in charge and of other engineering personnel to be employed. REA Form DS-28R is to be used for this purpose.
- c. A break-down of the estimated cost of engineering showing the amounts estimated for salaries and wages, equipment purchases, equipment rental, materials, and other incidental costs.

After review by REA of the qualifications of the engineer and of the estimated cost of engineering services, the borrower will be notified of approval or disapproval. In the case of disapproval, a full explanation will be given for the action taken, and, in the case of approval, proper funds will be established in the loan budget to be available as needed after approval of the loan.

Representatives of manufacturers and materials suppliers may offer to make engineering studies in connection with proposed additions to or changes in borrowers' systems. Acceptance of such offers may result in plans calling for equipment or materials of a particular manufacturer, thereby eliminating competitive bidding. To assure lowest possible costs, we recommend very strongly that independent engineers be employed to make any studies required. The Engineering Division reviews all such engineering studies to determine that the most economical construction consistent with desired operating results has been recommended. Borrowers are therefore urged not to accept engineering assistance from manufacturers or materials suppliers until the type and make of the equipment or materials to be installed have been determined and until such determination has been approved by REA.

Copies of Form DS-28R, "Engineer's Qualifications", are available from REA upon request.



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